REMARKS

This responds to the Office Action mailed on September 3, 2009.

Claims 1 and 24 are currently amended, no claims are currently canceled, claim 35 has previously been canceled, and no claims are added; as a result, claims 1-34 and 36-44 are now pending and subject to examination in this application.

§ 112 Rejection of the Claims

Claims 1-34 and 36-44 were rejected under 35 U.S.C. 112, first paragraph, as allegedly failing to comply with the written description requirement.

Claims 1-34 and 36-44 were also rejected under 35 U.S.C. 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The Applicant respectfully traverses these rejections.

Independent claims 1, 14, 24, and 34 recite:

"analyzing the one or more potential locations;

determining one or more specific locations among the one or more potential locations at which power-down instructions can be inserted;

selecting one or more of the one or more specific locations to insert the power-down instructions based on reducing and optimizing power consumption and satisfying user-specified real-time performance constraints."

The Office Action contends that the disclosure does not appear to distinguish the acts of analyzing/determining locations to insert power down instructions from the acts of identifying/determining locations to insert power down instructions such that these acts may be claimed as independent steps within the same process. The Office Action further contends that the specification does not appear to describe reducing power consumption while satisfying constraints as being distinguishable from the act of optimizing power consumption to support these as separable concepts within a single method.

Regarding the analyzing/identifying/determining contention in the Office Action, the Applicant respectfully submits that the Board in its decision of April 22, 2009 stated that the claims recite the steps of "identifying . . . , "selecting . . .", and "inserting . . .", but held that the claims did not recite a step of "'determining' where to put the power down instructions." Therefore the Board, contrary to the contentions of the Office Action, did not believe that the steps of "identifying . . . where the power down instructions can be inserted" and the step of "determining . . . [where] power down instructions can be inserted" are the same. Consequently, it is now the law of this case that the step of identifying is separate and distinct from the step of determining. While the Board did not specifically elaborate on this point, the Applicant respectfully submits that the prior-recited identifying step is broader than the latter-recited determining step. That the identifying step is broader than the determining step is supported by the recitation that the identifying step identifies *potential* locations, and the determining step determines *specific* locations.

Additionally, the narrowing of the functions of the steps of the claims can be seen in the logic of their recited order. That is, the broadest step is that one or more *potential* locations are identified. These one or more potential locations are then analyzed. Out of these one or more potential locations that have been analyzed, the one or more *specific* locations at which power down instructions can be inserted are determined. Then, one or more of these one or more specific locations, that is, a subset of the one or more specific locations, are actually selected to insert the power down instructions.

Moreover, support for the broader identifying step and the narrower determining step can be found in the specification. First, the specification discloses that in an embodiment, computer code can be searched to *identify* potential locations in the computer code, and a *determination* can be then made whether functional units are being used in that computer code.[1] Second, the specification discloses that in an embodiment, after a static *analysis* is completed, a detailed energy profiling of the computer code is invoked to associate (*i.e. determine*) each of the identified potential locations and further to predict the energy savings that can be obtained if the functional unit is switched off.[2]

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[1] Applicant's specification, page 6, lines 8-11.
[2] Applicant's specification, page 11, lines 1-5.

The Applicant therefore respectfully submits that the rejection of the claims under 35 U.S.C. 112, first paragraph is erroneous, and the Applicant respectfully requests the withdrawal of this rejection.

Similarly, the Applicant respectfully submits that the contention in the Office Action that the specification does not describe reducing power consumption as being distinguishable from the act of optimizing power consumption is equally erroneous. The claims on appeal before the Board recited "reducing power consumption," yet the Board held that the claims did not recite the step of optimizing. Consequently, it is now the law of the case that the steps of reducing and optimizing are distinct and separate steps. Once again, while the Board did not elaborate on this holding, the Applicant respectfully submits that reducing power consumption and optimizing power consumption are two distinct concepts. For example, power consumption is reduced when the level of power consumption goes down. However, power consumption can be optimized by maintaining the power consumption at a constant level, but using a greater number of components that are more efficient in operation such that the rate of consumption per component decreases.

Moreover, support for the separate concepts of reducing power consumption and optimizing power consumption can be found in the specification. Specifically, the specification discloses that apart from energy conservation issues (*i.e.,* reducing energy consumption), power efficiency is a concern for battery-operated equipment wherein it is desired to minimize battery size so that equipment can be made smaller (*i.e.,* energy consumption is optimized).[3]

Regarding the rejection of the claims under 35 U.S.C. 112, second paragraph, the Applicant respectfully submits that as noted above, the steps recited in the claims are separate and distinct (per the law of the case recited in the Board's decision), there is support in the specification for these separate and distinct steps, and the Applicant respectfully requests the withdrawal of the rejection of the claims under 35 U.S.C. 112, second paragraph.

The Office Action further rejects the claims as being indefinite because the term "significantly" allegedly renders the claim indefinite. The Applicant respectfully disagrees, and

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[3] Applicant's specification, page 1, lines 12-15.

respectfully submits that there is verbatim support for this claim phrase in the specification.[4] The Applicant further respectfully submits that whether an increase in execution time is significant or not depends on several factors such as the type of processor on which the code is executing, and the language in which the program code is written (*e.g.*, a slower executing high level language versus a faster executing low level language). The Applicant respectfully submits that one of skill in the art would know what amounts to a significant increase in execution time depending on each particular situation. The Applicant respectfully submits that the rejection of the claims based on the claim term "significantly" is erroneous, and the Applicant respectfully requests the withdrawal of the rejection of the claims.

Notwithstanding, in order to advance the prosecution of claims 1-13 and 24-33, the Applicant has deleted the term "significantly" from independent claims 1 and 24, and the Applicant respectfully submits that this amendment overcomes the rejection of claims 1-13 and 24-33 with respect to this issue.

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[4] Applicant's specification, page 2, lines 17-18.

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's representative at (612) 371-2140 to facilitate prosecution of this application.

If necessary, please charge any additional fees or deficiencies, or credit any overpayments to Deposit Account No. 19-0743.

Respectfully submitted,

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Date January 4, 2010   By _____

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being filed using the USPTO's electronic filing system EFS-Web, and is addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this _____ ~~day of September, 2009~~, 4th January 2010

John D. Gustav-Wrathall
Name   Signature